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Academic Career Development Stress and Mental Health of Higher Secondary Students - An Indian Perspective

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Academic Career Development Stress and Mental Health of Higher Secondary Students - An Indian Perspective

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Abstract

The authors explored the mental health of students with their academic career-related stressors collecting data from 400 students of different schools of Eastern part of India by using; namely General Information Schedule (GIS), the General Health Questionnaire (GHQ), and the Academic Career Development Stress Scale. The data was subjected to t tests and ANOVA. The study shed light on three main results: (i) academic career development stress along with its ten components revealed dissimilarities with respect to gender and streams of study, (ii) significant relationships were indicated between the mental health status of students and various aspects of academic stress and demographic factors, (iii) qualitative analyses highlighted the complex of association among academic stress, mental health and other variables.

Keywords: student stress, mental health, academic career development stress
Estrés Vinculado al Desarrollo de la Carrera Académica y Salud Mental de Estudiantes de Educación Secundaria Superior - Una perspectiva Índia

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Resumen
Los autores han explorado la salud mental de los estudiantes con los estresantes relacionados a su carrera recogiendo datos de 400 estudiantes de diferentes escuelas de la parte este de India, utilizando; Información General del Horario (GIS), el Cuestionario General de Salud (GHQ), y la Escala de Desarrollo de Estrés de la Carrera Académica. Con los datos se llevó a cabo t-test y ANOVA. El estudio produjo tres resultados principales: (i) la escala de desarrollo de estrés de la carrera académica junto con sus diez componentes revelaron diferencias en relación a género y tipo de estudios, (ii) se hallaron relaciones significativas entre el estatus de salud mental de los estudiantes y varios aspectos de estrés académico y factores demográficos, (iii) el análisis cualitativo desveló el complejo de asociación entre estrés académico, salud mental y otras variables.

Palabras clave: estrés de los estudiantes, salud mental, desarrollo del estrés de la carrera académica
Higher Secondary course is, on the one hand, a terminal for those who enter the world of work after this stage and, on the other hand, it is preparatory to higher education. During this course, students are required to cope with the psycho-physical changes of their adolescence stage along with the heavy pressure of curriculum activities for good grounding in subject areas, learning orientation, prerequisites of examinations and highly competitive screening tests for suitable higher level courses. The situation is relatively more critical for the science stream students given their extensive and exhaustive preparation for higher level science and technology courses or science based profession. These types of stress experiences of the students for meeting excessive academic demands, adjusting to new career opportunities or developing academic careers are termed as “academic career-development stress” by many researchers (Chng et al, 1998; Misra & McKean, 2000; Sharma & Jaswal, 1999).

**Academic Career Development Stress**

The academic career development stress is an individualized phenomenon, unique to each student and setting (Hudd et al, 2000). It is a subjective feeling, which is hard to avoid by students. The sources of academic stress may be life events or chronic strains related to academic programmes and workloads (Hudd et al, 2000). Such stress may elicit fear, tension and other psychosomatic problems and may be associated with a variety of serious negative outcomes in the adolescents, including suicidal ideation, smoking (Naquin & Gilbert, 1996) and drinking (McCormick, 1996). In extreme situations, adolescents may seek professional help to cope with the debilitating effects. This type of stress is recognized as the harmful physical and emotional responses that occur when the requirements of the academic activities do not match the capabilities, resources and needs of the students (Pramanik & Ray, 2003). **Academic Career Development** stressors are considered as the student perceived stressors which generally emerge from demands of academic and curriculum environments and resourcefulness (ability, stress, etc.) of the students concerned (Sharma & Jaswal, 1999).
Student Stress

Thus stress may arise due to the academic demands, adjusting to new course, medium of instructions, institutional situations or when developing appropriate communications with classmates and teachers, etc (Spielberger & Vagg, 1995; Akgun et al, 2003). Academic stress is considered as a process in which external or internal demands are interpreted by the students or learners in relation to their own values and goals (Allen & Heibert, 1991; Campbell & Svenson, 1992). Such stress can generally be defined as the reaction of individuals to demands (stressors) imposed upon them that refer to situations where well-being of the individuals is detrimentally affected by their failure to cope with the demands of their environment. With changing pattern of life style, value system, employment and educational opportunities, expenses for education, trends of parental expectations etc., the complexities in academic career development and related academic stress on school students are intensifying, which are indirectly being influenced by the students and their behavior. In the face of new economic challenges and competitive academic situations, the concerns regarding such academic performances and the spectra of academic failure are among the most common sources of stress and mental health hazards for students (Hembree, 1988; Pekrun, 1992; Seipp, 1991). Mental Health Status is a positive sense of well being encompassing the physical, mental, social, basic economic and spiritual aspects of life (WHO, 2005). In this context, owing to age-specific sensitivity, needs for growth and exposure, career decision and future education, makes the situation to be more critical in case of adolescent students studying in Higher Secondary class (Ray & Goswami, 2000; Ragheb & McKinney, 1993).

Stressors and Students

Stressors affecting students can be categorized as academic financial time or health related, self imposed. Further researchers suggested that major sources of academic stress were tests, grade competition, teachers, classroom environment and opportunities for future career (Abouserie, 1994; Britton & Tesser, 1991). Chng et al (1998) opined
that stressors among students can be divided into two main categories: academic performances and special activities. Pramanik & Ray (2003) observed that high academic desire and competition could be thought of as a significant academic stress. Again some researchers observed that curriculum overload and conflicting roles in individual life that produce competing and potential demands over time may be source of stress and chronic strain for many students. In line with this, researchers identified that frequent class tests and observations, expectation from school teachers, parents and others were as well significant sources of stress among some students. Thus, major sources of stress go beyond high parental expectance, too much control of parents, parental monitoring style, lack of support and communication barriers with teachers and classmates, and strict discipline at school and at home (Ray & Goswami, 2000; Mishra & McKean, 2000).

Macan et al. (1990) found those students who have perceived themselves as in control of their time reported greater work and life satisfaction. Along with time management, test anxiety was generally conceptual as significant stressor as well as predictor of level of stress and educational achievement of students (Pekrun, 1991; Goswami, 2000). Many studies reported that the stress experience of students were related to their perceived economic crises, and financial management pressure to carry out the expenditure for learning materials, tuition fees, etc. (Lay & Schouwenburg, 1993). Medium of instruction sometime acted as a source of stress for some students and language deficiencies have also been found to be important source of stress of some learners.

**Stress and academic performance**

However, the relation between stress and academic performance is not a simple one. It has both positive and negative effects on academic achievement and performance. Generally, most of the students have the ability to do well on academic curriculum activities and examinations, but because of stress many of them fail to perform at a level commensurate with their intellectual ability (Spielberger & Vagg, 1995). When such stress is perceived negatively and becomes excessive, students experience physical and psychological impairments (Murphy &
& Archer, 1966), varying degrees of pathological symptoms and reduced level of cognitive ability in academic performance (Verma et al, 1995). Recently, the academic stress related consequences and mental health status have become contemporary pervasive problems of students and academic institutions (Ray & Goswami, 2000; Spielberger & Vagg, 1995). Consequently, psychologists, counselors, educators, psychiatrists and persons interested in secondary and higher secondary education have become increasingly concerned with dependable preventive measures to protect students from career development stressors and their mental health hazard and develop methods of intervention/ counseling for stress and mental health management. As a step in this direction, the present research proposal has been framed to study the nature of academic career development stressors variables of students of West Bengal with respect to their mental health status and some demographic attributes. Accordingly, the following objectives were drawn for empirical observations:

(a) To study the nature of academic career development stress of higher secondary students with respect to gender (male and female).
(b) To study the nature of academic career development stress of higher secondary students with respect to their stream of study (Science and Humanities).
(c) To study the nature of career development stress of Higher Secondary students with respect to their mental health status.

**Methodology**

**Tools Used**

**Semi structured questionnaire**

This semi structured questionnaire was developed by the researchers and includes background information schedule about the curriculum, study hour, routine of studies, needs of the students, attitude towards their perceived stress, anxiety about examination, skill of communication, level of aspiration about future, etc.
Academic career development stressors scale

This scale was also developed by the researchers and consisted of 55 items, covering 10 domains, namely: difficulty level, course variation, deprivation of pleasure and interest, anticipation of punishment and criticism, time management, academic competitiveness, lack of support, academic achievement desire, test anxiety, expectancy of others, etc. The item total correlation value of the inventory ranges between 0.91 and 0.99 and the reliability coefficient of the inventory was 0.87 (Split half).

Operational definition of the sub dimensions of the scale

(a) Difficulty level of curriculum: Difficulty level of curriculum is considered as those type of pressing forces which are originated by the perceived level of complexities in integration pattern of core and peripheral subjects, content structure and educational objectives of curriculum, prerequisites of competencies for good grounding in subjects and evaluation etc.

(b) Course Variation: Course variation is regarded as interacting pressing conditions which generate from the disparities between the regular higher secondary courses and other parallel screening test-courses, in terms of the syllabus, educational objectives, and evaluation strategies, etc.

(c) Deprivation of pleasure and interest: Deprivation of pleasure and interest is thought of as the stress originating from the student perceived level of lacking in interesting and attractive contents in syllabus, pressure of unpleasant cravings and memorization, deprivations of the normal age specific needs and enjoyment due to tedious routine work, etc.

(d) Anticipation of Punishment and Criticism: Anticipation of punishment and criticism is considered as perceived stress provoking chain of events and efforts of the informant students which create hazards to achieve appreciation protection, opportunities for security and recognition about the capabilities and worth in several social and career situations.
(e) Pressure of Time Management: Pressure of time management is regarded as the stress associated with the feeling of lack of perceived control overtime which influences to manage the aspects of the individual student’s outcomes such as academic performance, problem-solving ability and health.

(f) Academic Competitiveness: Academic competitiveness is characterized as the pressure or stress generating from those perceived importance of efforts and level of activities for uniqueness of the competitive strategies in the form of drives to achieve desired level of status in competitive examination, academic success.

(g) Lack of Support: Lack of support is characterized as those stress associated with the feeling of inappropriateness of help and support (informational, instrumental and emotional) from the family members, teachers and institutions in relation to academic and career activities.

(h) Academic Achievement Desire: Stress of Academic Achievement Desire is characterized as that pressing force which arises out of the intense feeling of individual urges for high level academic excellence and achievement status.

(i) Test Anxiety: Test anxiety is considered as the feeling of tension, apprehension nervousness and worry of students in association with their test performances, nature of test questions, prerequisite of learning skills and competencies for evaluation, etc.

(j) Expectancy of Others: This may be thought of strain of students due to influence of interacting forces dictated by the conditions and levels of expectancies and desires of parents, teachers and others about their achievement and career status.

**General health questionnaire (GHQ)**

This 28-item based scale was originally developed by Goldberg and Heller (1979) covering four subscales for somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. In this study, both original and locally adopted version of GHQ (Basu & Dasgupta, 1996) was used. The item total correlation ranged between 0.68 and 0.88 and its split – half reliability was 0.97. The total score ranges from
0 to 28. The threshold for case identification was taken as 4/5 i.e. score 4 signifies a non-psychiatric case and 5 signifies a psychiatric case.

Sample

A group of 400 students (200 male and 200 female) from secondary schools in Kolkata city and adjacent districts (Howrah and Hooghly) of West Bengal were drawn equi-proportionally from two streams of study (200 from science stream and 200 from humanities). They were selected randomly by following some inclusion criteria (age range 17-19 years and mother tongue Bengali) and exclusion criteria (shifting of stream, history of any gap in course of studies, history of any chronic disorder, records of any indiscipline behaviour).

Procedure

Data were collected from the sample group by using the above mentioned tools and strictly following the ethical issues for response collection. Both qualitative and quantitative analysis (Percentage, Mean, SD, t-test and ANOVA as per requirement) were done.

Results

This paper focuses, firstly, on the selected domains of academic career development stress (difficulty level, course variation, deprivation of pleasure and interest, anticipation of punishment and criticism, time management, academic competitiveness, lack of support, academic achievement desire, test anxiety, expectancy of others, etc) of the higher secondary student with respect to their stream of study (science and humanities) and gender (male and female). This analysis is shown in table 1. Secondly, the study reveals the nature of career development stressors with respect to the mental health status of the higher secondary students. This second analysis is revealed in table 2.
Profile of the Stressor Variables among Higher Secondary Students

It can be observed that the Mean values of the stressor variables and ANOVA results (See Table 1) indicated that the overall academic career development stress of the four groups of students were moderately high and there was no significant difference between the science stream students and the humanities stream students in terms of the overall pressure of academic career development stressors \((F = 0.44)\). This means that there existed an almost uniform loading of overall stress of Science and Humanities stream students.

The component-wise analysis indicated that significant differences existed between Science versus Humanities stream students in terms of the six Academic Career Development Stress Scale (ACDSS) Components. Among these six component areas the strength of influence of the three factors namely difficulty level of curriculum \((M = 15.57; F = 8.67)\) anticipated punishment and criticism \((M = 11.65; F = 10.88)\) and expectancy of others \((M = 22.92; F = 7.01)\) were relatively higher among the science stream students than that of the students of the Humanities group. Again, the strength of influence of the three factors namely deprivation of pleasure and interest \((M = 20.52; F = 65.98)\), pressure of time management \((M = 18.76; F = 11.78)\) and high academic achievement desire \((M = 12.54; F = 3.80)\) were relatively higher among the Humanities stream students than the students of Science group.

Gender-wise analysis indicated that significant differences existed between male and female students in terms of the overall stress \((M = 151.72; F = 4.38)\) along with the selected sources of stressors variables. In this regard, female exhibited higher responses to 6 dimensions of stressors: course variation \((M = 9.77; F = 15.77)\), anticipated punishment and criticism \((M = 11.81; F = 17.84)\) and pressure of time management \((M = 18.72; F = 10.71)\), pressure of academic competitiveness \((M = 18.72; F = 12.32)\), academic achievement desire \((M = 13.22; F= 31.18)\), and test anxiety \((M = 13.05; F = 75.75)\). At the same time, male exhibited higher reaction to only 1 dimension of stressors: expectancy of others \((M = 23.51; F = 19.97)\). The nature of such differences between the male and the female groups were found to be affected by the interaction of the stream of study of the students for
selected 5 components (course variation, F = 32.23; deprivation of pleasure and interest, F = 12.91; anticipation of punishment and criticism, F = 10.31; academic achievement desire, F = 36.69 and expectancy of others, F = 98.97).

Table 1
Mean (M), mean difference (MD) and ‘F- ratio’ values for academic career development stress (ACDS) scale scores of students (N = 400) under two different treatment conditions (stream of education and sex of the students)

<table>
<thead>
<tr>
<th>Component Areas</th>
<th>Mean values and Mean Difference of ACDSS Scores of students (n = 400)</th>
<th>‘F-ratio’ values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stream of Study (Science and Humanities)</td>
<td>Sex difference (Male and Female)</td>
</tr>
<tr>
<td>Overall scale Scores</td>
<td>Science (M) = 146.45</td>
<td>Male (M) = 143.72</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 148.99</td>
<td>Female (M) = 151.72</td>
</tr>
<tr>
<td></td>
<td>MD = 2.54</td>
<td>MD = 16</td>
</tr>
<tr>
<td>Difficulty Level of Curriculum</td>
<td>Science (M) = 15.57</td>
<td>Male (M) = 14.60</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 14.09</td>
<td>Female (M) = 15.06</td>
</tr>
<tr>
<td></td>
<td>MD = 1.48</td>
<td>MD = 0.46</td>
</tr>
<tr>
<td>Course Variation</td>
<td>Science (M) = 9.11</td>
<td>Male (M) = 8.56</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 9.21</td>
<td>Female (M) = 9.77</td>
</tr>
<tr>
<td></td>
<td>MD = 0.1</td>
<td>MD = 1.21</td>
</tr>
<tr>
<td>Deprivation of pleasure and Interest</td>
<td>Science (M) = 15.88</td>
<td>Male (M) = 18.33</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 20.52</td>
<td>Female (M) = 18.07</td>
</tr>
<tr>
<td></td>
<td>MD = 4.64</td>
<td>MD = 0.26</td>
</tr>
<tr>
<td>Anticipation of punishment and criticism</td>
<td>Science (M) = 11.65</td>
<td>Male (M) = 10.35</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 10.51</td>
<td>Female (M) = 11.81</td>
</tr>
<tr>
<td></td>
<td>MD = 1.14</td>
<td>MD = 1.46</td>
</tr>
<tr>
<td>Pressure of Time Management</td>
<td>Science (M) = 16.82</td>
<td>Male (M) = 16.87</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 18.76</td>
<td>Female (M) = 18.72</td>
</tr>
<tr>
<td></td>
<td>MD = 1.94</td>
<td>MD = 1.85</td>
</tr>
<tr>
<td>Academic Competitiveness</td>
<td>Science (M) = 14.61</td>
<td>Male (M) = 13.78</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 14.43</td>
<td>Female (M) = 15.26</td>
</tr>
<tr>
<td></td>
<td>MD = 0.18</td>
<td>MD = 1.48</td>
</tr>
<tr>
<td>Lack of Support</td>
<td>Science (M) = 16.77</td>
<td>Male (M) = 16.58</td>
</tr>
<tr>
<td></td>
<td>Humanities (M) = 16.38</td>
<td>Female (M) = 16.56</td>
</tr>
<tr>
<td></td>
<td>MD = 0.39</td>
<td>MD = 0.02</td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Component Areas</th>
<th>Mean values and Mean Difference of ACDSS Scores of students (n = 400)</th>
<th>‘F-ratio’ values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stream of Study (Science and Humanities)</td>
<td>Sex difference (Male and Female)</td>
</tr>
<tr>
<td>Academic Achievement Desire</td>
<td>Science (M) = 11.80 Humanities (M) = 12.54 MD = 0.74</td>
<td>Male (M) = 11.12 Female (M) = 13.22 MD = 2.10</td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>Science (M) = 11.34 Humanities (M) = 11.65 MD = 0.31</td>
<td>Male (M) = 9.94 Female (M) = 13.05 MD = 3.11</td>
</tr>
<tr>
<td>Expectancy of others</td>
<td>Science (M) = 22.92 Humanities (M) = 20.92 MD = 2</td>
<td>Male (M) = 23.51 Female (M) = 20.23 MD = 3.28</td>
</tr>
</tbody>
</table>

Note: * = Significant at 0.05 level, ** = Significant at 0.01 level.

Profile of Stressors with Respect to the Mental Health Status of the Students

Analysis of the responses indicated (See Table 2) that out of 400 students, only 56 students showed their GHQ scale scores above 5. In order to verify the profile of the stressor variables in terms of the mental health status of the students, the t-test on stressors profile was performed for the scores of randomly selected 50 typical and 50 students with mental health challenges.
Table 2
Results of t values on Academic Stressor Variables scores for mean values of the two groups of students (Group 1 for Normal and Group 2 for Problem cases as per General Health Questionnaire, GHQ)

<table>
<thead>
<tr>
<th>Stressor Variables</th>
<th>Students groups as per mental health status (n=50)</th>
<th>Mean</th>
<th>SD</th>
<th>t values for mean difference between Group 1 and Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty level of curriculum</td>
<td>Group 1</td>
<td>11.92</td>
<td>2.79</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>12.22</td>
<td>2.65</td>
<td></td>
</tr>
<tr>
<td>Course variation</td>
<td>Group 1</td>
<td>8.02</td>
<td>1.76</td>
<td>-1.59</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>8.62</td>
<td>2.01</td>
<td></td>
</tr>
<tr>
<td>Deprivation of pleasure and interest</td>
<td>Group 1</td>
<td>16.58</td>
<td>4.31</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>16.82</td>
<td>3.39</td>
<td></td>
</tr>
<tr>
<td>Anticipation of punishment and criticism</td>
<td>Group 1</td>
<td>17.14</td>
<td>3.81</td>
<td>-3.42*</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>19.76</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Pressure of time management</td>
<td>Group 1</td>
<td>8.30</td>
<td>2.62</td>
<td>2.73*</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>9.66</td>
<td>2.36</td>
<td></td>
</tr>
<tr>
<td>Academic competitiveness</td>
<td>Group 1</td>
<td>16.96</td>
<td>3.75</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>17.04</td>
<td>4.31</td>
<td></td>
</tr>
<tr>
<td>Lack of support</td>
<td>Group 1</td>
<td>12.14</td>
<td>1.93</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>12.60</td>
<td>2.37</td>
<td></td>
</tr>
<tr>
<td>Academic achievement desire</td>
<td>Group 1</td>
<td>16.68</td>
<td>4.01</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>16.76</td>
<td>3.98</td>
<td></td>
</tr>
<tr>
<td>Test anxiety</td>
<td>Group 1</td>
<td>25.26</td>
<td>4.83</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>26.56</td>
<td>5.16</td>
<td></td>
</tr>
<tr>
<td>Expectancy of others</td>
<td>Group 1</td>
<td>9.66</td>
<td>3.47</td>
<td>2.51*</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>11.34</td>
<td>3.22</td>
<td></td>
</tr>
<tr>
<td>Overall academic career development stress</td>
<td>Group 1</td>
<td>142.66</td>
<td>18.89</td>
<td>2.49*</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>151.38</td>
<td>15.96</td>
<td></td>
</tr>
</tbody>
</table>

Note: * = significant at 0.01 level
The results of the significant t values (See Table 2) highlighted that the significant differences existed between normal students and students with mental health problems in terms of the profile of overall career development stress (F = 2.49) including its three components: problem of time management (F = 2.73), anticipation of punishment (F = 3.42), and expectancy of others (F = 2.51).

**Discussion**

**Profile of the Stressor Variables among Higher Secondary Students**

The component-wise analysis indicated that significant differences existed between Science versus Humanities stream students in terms of the six Academic Career Development Stress Scale (ACDSS) Components. One of the reasons behind such type of perceived high stress for Science stream students for loading of curriculum, expectancy and anticipated punishment may be that in the test conscious culture, the Science stream students of Higher Secondary Examination were preparing themselves for parallel different competitive examinations (such as IIT-JEE, CBSE-PMT, AIEEE, JIPMER, AFMC, AIIMS etc.) along with Higher Secondary Examination. Accordingly, these students were under critical pressure of stress originating from the level of parallel loading of syllabus of different simultaneous courses. The present findings about stress of parental expectation and difficulty level of curriculum loading, as influencing stressors of the science and technology students were also observed in previous studies with Indian students (Pramanik & Ray, 2003; Ray & Goswami, 2000; Sharma & Jaswal, 1999).

The present findings about trends of relatively higher stress among female students were also supported by the findings of Awake (1998) and Mishra et al. (2003) for the cultural orientation and the socialization process for expression of stress. The possible reasons for this may be that the females rate negative events more often and more markedly than males (Allen & Hiebert, 1991). Lower reactions to stressors for males students may result from their socialization which teaches them that emotional experience is an admission of weakness and not masculine (Davidson-Kartz, 1991).
Profile of Stressors with Respect to the Mental Health Status of the Students

The results highlighted significant differences between normal students and students with mental health problems in terms of the profile of overall career development stress. This depicted that students having negative attitude and perception about environment, limited future opportunities etc., were more prone to stress. The study further highlighted that negative attitude, anxiety and stressors were the preconditions for facilitating mental health problems among the students.

Background Information about Stress and Mental Health

Qualitative responses of the students (65% and above) in terms of their background information and personal interview following test-session had indicated that the study habit (in planned routine, habit of reading for 6 hours in an average or above, consultation of reference books, standardized notes and newspaper reading, practice of regular writing and frequent evaluation test etc.), free discussion with school teachers, private tutors, classmates and others with course matter, informational and congenial instrumental support from parents and school teachers, as well as their relaxation techniques (chatting, friendly informal conversation, playing, listening music and watching T.V.) were reported as helpful for developing their management skills for curriculum and time in a more comfortable way. Students (91%) also mentioned that discussion session and learning in small groups either in school or in coaching centers helped them to enjoy the learning environment to develop better understanding of studies, communication and interpersonal relationships. This means the students’ positive feeling about the support of others and the student centered pedagogy helped them to become tolerant of diverse viewpoints, to consider others’ thoughts and feeling in depth (Sharma & Sharma, 2009) and all these factors had acted as their coping strategy for management of stress and mental health.

The study further highlighted that perception and attitude towards curriculum loading, pressure of time management for institution and
private tutors, perception of their skill of communication along with English skill, career ambitions, participation and status of involvement in the co-curricular activities and their academic performance status has marked specificity with respect to the status of the mental health of students.

**Conclusion**

The trend of moderate level of career development stress is the general characteristic feature of the science and humanities stream students of higher secondary schools of Kolkata and adjacent districts. Even projecting their uniformity in overall loading of stress, the science and humanities stream students display their uniqueness in the relative influencing impact of selected six stressor variables. In general, the stressor components- ‘difficulty level of curriculum’ (due to heavy loading of contents and learning prerequisites of summative form of evaluation test, as well as for simultaneous screening tests for opportunities for higher education), ‘anticipated punishment and criticism’ for disqualification or failure, and interacting chain of stressful events arising out of expectancy of others (parents, teachers and family members) are relatively more significant for generation of stress among the science stream students. At the same time, ‘pressure of time management’ for heavy loading of curriculum and too many tasks/tests at a time, ‘deprivation of pleasure and interest’ of students with reference to the age-specific activities, curiosities and contacts (due to prolonged time schedule of curriculum activities) and too high ‘academic achievement desire’ are significant stress-generating attributes for the humanities group (Ray & Goswami, 2000).

The profile of academic career development stressors indicated marked specificity in terms of the ‘gender of the students’ and the overall academic stress was significantly higher among female students. The profile of career development stressors has indicated marked specificity with respect to the mental health status of the students. The negative attitude and perception about the environment, anticipation of limitations for future opportunities and too much curriculum loading, expectations from others etc., are some of the facilitating factors for
stress and mental health problems of students. At the same time, positive attitude towards supportive environment and learner centered pedagogy have acted as an important precondition for facilitating positive social relationships, adjustment and well-being of the students. The study also highlighted that there exists complex relationships among academic stress, mental health and other background life variables for promotion of adjustment and performance status of the students (Ray & Goswami, 2000; Spielberger & Vagg, 1995).

The rigorous demands of the academic curriculum and institutions make it difficult at times for the students to cope with variety of stresses. Hinkelman et al (2007) have pointed out that it is necessary to understand the influence of various interactive variables within the present day educational context to ensure successful interventions. If counselors can help clients understand the connections between stress and academic challenges, counseling may be an effective means of coping (Hinkelman, 2007; Multon et al., 2001). Along this line, Manuele-Adkins (1992) has stated that counselors must view students holistically and integrate the goals of psychological and educational adjustment into their counseling programs.

High levels of psychological distress and the inability of the students to cope may lead to increased risk of long-term problems in personality characteristics, provoking academic delays, low achievement, reduce teaching-learning outcome, student suicide, self-harm, harm to others and violence in society (Ge & Conger, 1999). Educational institutions should make provisions to help students stay physically, emotionally, spiritually and socially balanced (Schultheiss 2000) by organizing various wellness programs for promoting awareness drives, healthy lifestyles, student-driven social events, ethnic minorities, peer mentoring, sports and recreation- stress busters.

Henceforth, there is urgent need for the educational administrators to develop suitable interventions at the right stage to combat the negative consequences of students stress and develop balanced mental health status for successful academic achievement, development and harmony in society.
References


Goswami, N. (2000). *A study on level of self-confidence, success-anxiety and attitude of the fresh and repeater candidates preparing for*


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